

interference in the two-dimensional photonic crystal, as discussed at paragraph [0004], for example.

The Office Action admits that Deng does not disclose that a center of gravity of each modified refractive index area on the side facing the active layer is displaced from that on the side opposite from the active layer, and asserts that Baba allegedly discloses this feature. However, Applicants respectfully submit that one of ordinary skill in the art would not have been motivated to modify Deng by Baba for the following reasons.

The low refractive index region 21 of Baba is circularly arranged as illustrated in Fig. 7B, and cannot be envisaged that the circular arrangement causes a Bragg diffraction. In fact, Baba discloses the function of the low refractive index region 21 that "light is confined in the center portion and an efficiency of light-emission is enhanced due to the decrease of a mean value of refractive-index occurred by the existence of a low refractive-index region disposed therein." See paragraph [0033] of Baba. Further, Baba discloses that "according to an embodiment, it is assured that the phenomenon different from the photonics crystal effect occurs." See paragraph [0034] of Baba.

Regarding the shape, Baba teaches that "a low refractive index region 21 becomes large with going away from an active layer" (emphasis added). See paragraph [0101] and Fig. 6 of Baba. The similar disclosure can be found in paragraph [0104] and Fig. 7B. Therefore, Baba does not teach or suggest that a plane shape of each modified refractive index area on a side opposite from the active layer is smaller than that on another side facing the active layer as called for by claim 1.

Therefore, the low refractive index region 21 of Baba is a different type of the modified refractive index area as recited in claim 1.

Because of the above discussed characteristics of Baba, the combination of Deng and

Baba would not have resulted in producing the Bragg diffraction and shaping the low refractive index region having a larger side on the side opposite from the active layer. As such, the combination of Deng and Baba would not have recognized the above-discussed advantage and thus would not have achieved the features of claim 1. Thus, claim 1 is patentable over Deng and Baba.

Claims 3-6 are allowable at least for their dependence on claim 1, as well as for the additional features they recite. Accordingly, withdrawal of the rejection is respectfully requested.

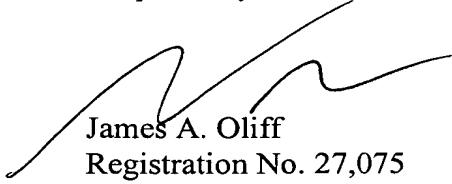
The Office Action rejects claim 2 under 35 U.S.C. §103(a) over Deng in view of Baba, and further in view of JP Patent 2003-273455 to Noda et al. (hereinafter "Noda"). This rejection is respectfully traversed.

Claim 2 is allowable at least for its dependence on claim 1, as well as for the additional features it recites. Accordingly, withdrawal of the rejection is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-6 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


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